Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

1.   (currently amended) A method for the manufacture of synthesis gas comprising:

a)   producing a feed gas mixture comprising a hydrocarbon and oxygen containing gas;

b)   reacting the feed gas mixture over a <u>solid</u> catalyst that contains more than approximately 0.01% rhodium by weight so as to produce a product gas comprising hydrogen and carbon monoxide and a spent or used catalyst that contains rhodium; and

c)   <u>removing at least a portion of the rhodium from the spent catalyst via an acid solution, and isolating the rhodium from the acid solution to recover or reclaim said</u> ~~recovering or reclaiming~~ rhodium from the spent catalyst.

2.   (original) The method of claim 1 wherein the recovered rhodium is used in the manufacture of fresh rhodium catalyst.

3.   (original) The method of claim 1 wherein the recovered rhodium is used to reduce the net operating cost by selling the recovered rhodium.

4.   (currently amended) The method of claim 1 wherein step c) is accomplished by a method comprising:

c1)   roasting the spent catalyst in air at a roasting temperature sufficient to convert at least a portion of rhodium to Rh_2O_3;

c2)   leaching the spent catalyst in a solution with a leaching constituent that is reactive with Rh_2O_3 to form a first intermediate species;

c3)   reacting the first intermediate species in a solution with an acidifying constituent or complexing agent to form a second intermediate species;

c4)   purifying the second intermediate species from the other species; and

c5)   <u>converting the second intermediate species to a final product and</u> recovering a <u>said</u> final product ~~from the second intermediate species~~.

5.   (original) The method according to claim 4 wherein the roasting temperature is from about 600°C to 800°C.

6.   (original) The method according to claim 5 wherein step c1) occurs for approximately 0.5 to 10 hours.

7.   (original) The method according to claim 4 wherein the spent catalyst is essentially nonporous.

8.   (original) The method according to claim 1 wherein the spent catalyst is porous.

9.   (original) The method according to claim 8 wherein the spent catalyst comprises particles in the range of 0.10 to 10 mm.

10.   (original) The method according to claim 4 wherein the leaching constituent is selected from the group consisting of HCl, HNO_3, H_2SO_4, $HClO_4$, HCN, HSCN and complex ligands.

11.   (original) The method according to claim 10 wherein the leaching constituent is HCl.

12.   (original) The method according to claim 11 wherein the leaching constituent comprises from 0.5M to 5M HCl.

13.   (original) The method according to claim 12 wherein the leaching constituent is cycled to the host material at a leach rate of approximately 0.1 to 1% bed volume per minute.

14.   (original) The method according to claim 11 wherein the first intermediate species consists essentially of $RhCl_3$.

15.   (original) The method according to claim 4 wherein the acidifying constituent or

complexing agent is selected from the group consisting of HCl, HNO$_2$, and mixtures thereof with their respective ammonia or sodium salts.

16.   (original) The method according to claim 15 wherein the acidifying constituent is HCl.

17.   (original) The method according to claim 16 wherein the acidifying constituent is at least 6M HCl.

18.   (original) The method according to claim 4 wherein step c3) is carried out in an ion exchange system.

19.   (original) The method according to claim 4 wherein step c4) comprises separating the second intermediate species in an anionic ion exchange column to form a product.

20.   (original) The method according to claim 19 wherein the product is kept as a rhodium-containing stock solution having a predetermined rhodium concentration.

21.   (original) The method according to claim 19 wherein the product comprises RhCl$_3$•nH$_2$O.

22.   (original) The method according to claim 4 wherein step c5) includes eluting the final product with a base.